



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604**

DATE: NOV 25 2015

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Real Alloy Recycling, Chicago Heights, IL

FROM: Scott Connolly, Environmental Engineer
AECAB (IL/IN)

THRU: Nathan Frank, Section Chief
AECAB (IL/IN)

TO: File

BASIC INFORMATION

Facility Name: Real Alloy Recycling

Facility Location: 400 East Lincoln Highway, Chicago Heights, IL 60641

Date of Inspection: November 10, 2015

Lead Inspector: Scott Connolly, Environmental Engineer, US EPA

Other Attendees:

1. Dakota Prentice, Environmental Engineer, US EPA
2. David Sutlin, Environmental Engineer, US EPA
3. John Early, Maintenance Superintendent, Real Alloy Recycling
4. Juan Torres, Production Manager, Real Alloy Recycling

Purpose of Inspection: Respond to citizen complaint and determine facility general compliance.

Facility Type: Secondary Aluminum Processing

Regulations Central to Inspection: The facility is subject to 40 C.F.R. Part 63, Subpart RRR

Arrival Time: 10:15 am

Departure Time: 11:30 am

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Credentials Presented
- ☒ CBI warning to facility provided

The following information was obtained verbally from John Early or Juan Torres unless otherwise noted.

Company Ownership: Facility was operated as IMCO Recycling until it was changed to Aleris Recycling in 2006. In March of 2015 Signature Group Holding Company purchased a majority stake and the name was changed to Real Alloy Recycling.

Process Description:

Real Alloy Recycling processes 80% industrial and 20% post-consumer aluminum scrap to produce 1200-1500 pound sows. Scrap is received by truck and is sorted by type of aluminum and customer before it is sent to the furnace. There is no scrap cleaning equipment on site. Real Alloy has two rotary furnaces that operate twenty-four hours a day, seven days a week, one with a 15,000 pound capacity and one with a 30,000 pound capacity. A furnace cycle is typically between 2 and 2.5 hours. At the end of a furnace cycle, the molten aluminum is poured into molds. Once the aluminum blocks have cooled they are stored on site before being sent by truck to customers. Real Alloy also has two holding furnaces that are used on an as needed basis to produce aluminum pellets and are only run every couple of weeks. They were not in operation on the day of inspection. Furnace emissions are sent first to coolers then to one of two baghouses. Furnace #1, the 15,000 pound furnace, is treated by a six compartment 45,000 cubic feet per minute (cfm) capacity dedicated baghouse that was installed in 2012. Furnace #2, the 30,000 pound furnace, is treated by an eight compartment 75,000 cfm capacity dedicated baghouse installed in 2014.

Staff Interview: : Upon arrival at the facility both the plant manager and plant environmental personnel were out of town, so facility staff informed us that they may not be able to answer all questions and follow up may be necessary. The facility was operating at a production rate of about 12 million pounds of finished aluminum product per month during the time of inspection and has a maximum of 15 million pounds per month. According to facility staff during rain events bag leak detection probes record false positives and must be reset every time. Maintenance plans dictate that baghouse bags are automatically changed out once per year which on average results in 1-2 days of down time on each compartment.

TOUR INFORMATION

EPA toured the facility: Yes

Data Collected and Observations:

EPA started the tour at scrap unloading and handling, where dust created from vehicle operations was present, but there was not any fugitive dust leaving the building. Real Alloy often receives hot aluminum stored in steel drums that has to be cut out using a torch. Emissions from this process are captured using hoods located directly above operations. Facility personnel indicated baghouse control operations locations and stated that on site engineering personnel recalibrate control systems annually. EPA witnessed charging of Furnace #1, the 15,000 pound furnace. During charging the feeder cart enters an enclosure and shakes material into the furnace, dust is captured by hood capture systems above the enclosure. EPA noted that the slag storage room has limited ability to control emissions and facility staff commented that only half of vent system is operational.

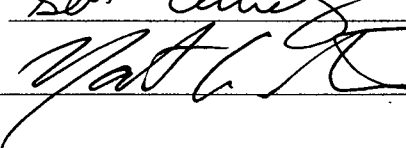
Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE**Requested documents:**

- Follow up information requested from plant manager and environmental personnel

SIGNATURES

Lead Inspector:  Date: 11/20/15

Section Chief:  Date: 11/25/15